

AMENDMENTS TO THE CLAIMS

Claims 1-15 (Canceled)

Claim 16 (Currently Amended): A reinforced silica substance comprising a silica glass substance comprising amorphous silica glass; and a porous layer comprising crystalline quartz and in a ring configuration on the silica glass substance, where the layer comprising crystalline quartz does not include a crystallization promoter includes less than 1 ppm of an alkali metal.

Claim 17 (Canceled)

Claim 18 (Previously Presented): The reinforced silica substance according to Claim 16, wherein the layer comprising crystalline quartz is produced by a process comprising coating the silica glass substance with a silica powder; and sintering the silica powder.

Claim 19 (Previously Presented): The reinforced silica substance according to Claim 18, wherein

more than 20 weight% of the silica powder consists of silica particles each having a particle size of less than 10 μm ; and
20 weight% or less of the silica powder consists of silica particles each having a particle size in a range of from 10 μm to 150 μm .

Claim 20 (Previously Presented): The reinforced silica substance according to Claim 16, wherein the reinforced silica substance is a crucible.

Claim 21 (Previously Presented): The reinforced silica substance according to Claim 20, wherein

the crucible comprises an inside surface and an outside surface; and
the layer comprising crystalline quartz is on at least part of the inside surface of the crucible.

Claim 22 (Previously Presented): The reinforced silica substance according to Claim 20, wherein

the crucible comprises an inside surface and an outside surface; and
the layer comprising crystalline quartz is on at least part of the outside surface of the crucible.

Claim 23 (Canceled)

Claim 24 (Withdrawn): A method of making a reinforced silica substance, the method comprising

coating a silica glass substance with a silica powder;
sintering the silica powder; and
producing the reinforced silica substance of Claim 16.

Claim 25 (Withdrawn): The method according to Claim 24, wherein the sintering is at a temperature that is less than a crystallization temperature of the silica powder.

Claim 26 (Withdrawn): The method according to Claim 24, wherein the reinforced silica substance is a crucible; and the sintering comprises crystallizing the silica powder by melting silicon in the crucible.

Claim 27 (Previously Presented): The reinforced silica substance according to Claim 16, wherein the layer comprising crystalline quartz consists of crystalline quartz.

Claim 28 (New): A silica glass crucible produced by a process comprising forming a silica glass powder layer on a surface of a silica glass crucible; and heating and sintering the silica glass powder layer at a temperature less than the crystallization temperature of the silica glass powder layer, wherein the silica glass powder layer is formed on the whole or a part of the surface of the crucible, and

wherein the silica glass powder layer is crystallized to reinforce the silica glass crucible by heating under the high temperature at the melting of the silicon raw material being charged into the crucible.

Claim 29 (New): The silica glass crucible according to Claim 28, wherein the silica glass powder layer is porous.

Claim 30 (New): The silica glass crucible according to Claim 28, wherein the silica glass crucible has an inside surface and an outside surface; and the silica glass powder layer is formed in a ring configuration on the outside surface of the silica glass crucible

Claim 31 (New): The silica glass crucible according to Claim 28, wherein the silica glass crucible has an inside surface and an outside surface; and the silica glass powder layer is formed in a ring configuration on the inside surface of the silica glass crucible.

Claim 32 (New): The silica glass crucible according to Claim 28, wherein the silica glass powder layer is formed from a silica powder; more than 20 weight % of the silica powder consists of silica particles each having a particle size of less than 10 μm ; and 20 weight % or less of the silica powder consists of silica particles each having a particle size in a range of from 10 μm to 150 μm .